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ANEMIA AND MALNUTRITION.

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One so often hears expressions of opinion, as to the cause of certain conditions in Porto Rico, that are obviously based on an incomplete knowledge of the facts, that it would seem appropriate to attempt to put things in their proper light.

There is no doubt that in large areas in the island the health of the people is much below normal, and that conditions are improving on account of the work of the Department of Health. Among some people there is considerable difference of opinion as to the cause of the poor health. It is quite certain that many people are definitely anemic and under weight. A very common explanation given is that they are suffering from malnutrition only; and that the relief of malnutrition is a very difficult and serious social problem. That malnutrition, poverty, and hunger, play an important part in undermining the health of the people is true, but to say that it is the main problem is to overlook the results of scientific observations that must be taken into consideration.

It is also often said that the conditions of poor health and anemia are produced by drinking polluted water and eating poor food. Possibly so to a small extent, but it is known, from investigations first made on this island, that the anemia, so common among the country people, is due to small worms which live in the intestines and in most cases gain access to the body by piercing the skin exposed to polluted soil. These worms will attack any skin they can reach, whether the owner is poor or rich, thin or fat. Naturally the severeness of the disease produced, uncinariasis, will depend in some degree on the strength and nutrition of the patient, those woll-neurised being usually less affected. But food alone, no matter how plentiful, will not cure the anemia of the country people of Porto Rico, and practically 90 per cent of the rural population suffer from uncinariasis.

Malaria is also much more common than is generally supposed. It was thought at one time to be caused by bad air and water in marshes and swamps, but it is now known that they got their bad reputation from the malaria mosquitoes which breed and develop there. Thus in Porto Rico we find malaria abundant in the coastal regions because of the numerous breeding places for Anopheles mosquitoes in marshes, mangrove swamps, small lakes, and creeks, and in the drainage and irrigation ditches of the cane fields. Laborers from other parts of the island come to these regions, become infected, and take the disease back to their home towns. But these germs do not choose the poor or undernourmshed. If the poor show more malaria it is mainly because the more wealthy seek treatment. It is also important to remember that undernourishment often comes on only after the disease has appeared - a result, not a cause.

The problem of relief of malnutrition is a difficult one, but as far as the public health problems of malaria and uncinariasis are concerned, they can be dealt with without any serious social revolution, and hence more easily handled than the problem of malnutrition. Social conditions must be improved as much as possible, but first these diseases must be cured and their reappearance prevented, so that when better pay and food are secured each person can enjoy them, instead of spending the money for patent medicines as at present.

One does not need a microscope to see the results of curing uncinariasis, a work started years ago by Ashford, King and Gutierrez. The food and water are the same after cure, although wages are probably greater because the nen are able to work and earn more, and the only social change has been the installation of a latrine at each house. Wherever carried on, the results of the uncinariasis campaign have been marked.

To say that chills and fever are caused by poor food is absurd. To say that a chronic case of malaria with its anemia and debility is due to the same cause is just as laughable. But one does not have to go far to find many people who still believe that the poor health of many innabitants of areas such as Parcelenati-Manati is due to the bad food and water they take, and the bad air they breathe from the swampy lands. Certainly food and water are poor in many cases, but they do not produce malaria and uncinariasis, nor will good food and water relieve the people of these diseases which affect the majority of them. The anemia campaign is curing them of their anemia and the installation of latrines is preventing the reappearance of the lisease. The malaria problem is much more difficult however. Quiniae will cure the disease and if used systematically and persistently will keep it in check. The best method when possible, however, of attacking the problem is to eliminate the Anopheles mosquite. Data is being gathered to determine the best method of solution. In the meantime the Department of Health is keeping the infections as low as possible by the systematic use of quinine.

It is important, therefore, to distinguish between the social problem in general and the health problem of malaria and uncinariasis, which are two of the biggest problems in Porto Rico. All efforts must be made to improve the nutrition and welfare of the people and these efforts must be continued to a successful conclusion, but it must not be forgetten that progress will be much faster after the blood of the people is brought to normal by the elimination of uncinariasis and malaria. People should look at the matter from this rational standpoint and not be discouraging the work of the Department of Health, by saying that there is no use in dealing with such diseases as tuberculesis, malaria and uncinariasis until the nutrition of the people is better and their pay increased. To eliminate tuberculesis each person does not have to live in a palace. Some of the richest families have members with tuberculesis. But each family can put a few extra windows in the house, leave them open at night, and keep children especially away from infected persons. The poorest of the poor can do that.

And until malaria, which is common in many coastal regions, and uncinariasis, which is common both on the northern coast and in the center of the island, are controlled, better nutrition cannot have its full effect. The elimination of these parasitic diseases will bring per se an improvement in the health of the community and a consequent improvement in nutrition.

